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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/648,932

08/27/2003

Edwin A. Lips II

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10/27/2006

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EXAMINER

PARSLEY, DAVID J

ART UNIT

PAPER NUMBER

3643

DATE MAILED: 10/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/648,932	Applicant(s) LIPS ET AL.	
	Examiner David J. Parsley	Art Unit 3643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 October 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 28 and 30-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 28 and 30-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

Art Unit: 3643

## **Detailed Action**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10-9-06 has been entered.

### ***Double Patenting***

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Art Unit: 3643

Claim 1 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 or 6 or 12 of U.S. Patent No. 6,314,979 to Lips in view of U.S. Patent No. 5,184,420 to Papadopoulos et al.

Referring to claim 1, claims 1, 6 and 12 of the Lips patent '979 discloses all of the claim limitations of claim 1 of the present invention except for the solenoid connected to a piston wherein the solenoid displaces the piston and wherein one slug of additive is injected into the pressurized flow in response to each injection pulse. Papadopoulos does disclose the solenoid – see claim 18 in column 12, connected to a piston – at the pump – at 4 – see column 4 lines 18-25, wherein the solenoid displaces the piston and wherein one slug of additive is injected into the pressurized flow in response to each injection pulse – see column 4 lines 1-43 and column 5 lines 22-66. Therefore it would have been obvious to one of ordinary skill in the art to take the device of claims 1 or 6 or 12 of the Lips patent and add the solenoid valve of Papadopoulos, so as to automatically control the operation of the device.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 28 and 30-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,545,396 to Miller et al. in view of U.S. Patent No. 5,184,420 to Papadopoulos et al.

Art Unit: 3643

Referring to claim 28, Miller et al. discloses a liquid delivery system for horticultural application, comprising, a controller – at 14-15, 45 and 54-59, electrically connectable to a zone watering control system – at 16-28 and 50-52 – see for example figures 1-2, where the controller is configured to generate and transmit fluid zone control signals to selectively control a pressurized fluid flow to a plurality of fluid delivery zones – see figure 2 and column 3 lines 66-68 and column 4 lines 1-36, and generate injection pulses to selectively control injection of a predetermined number of slugs of liquid additive – at 50, into the pressurized fluid flow – see for example column 2 lines 66-68, column 4 lines 1-68, column 5 lines 1-68 and column 6 lines 1-10, wherein the predetermined number of slugs is generated in accordance with at least a first criteria associated with the fluid zone control signals – see figure 2, column 2 lines 66-68, column 4 lines 1-68, column 5 lines 1-68 and column 6 lines 1-10, and an injector – at 52m for injecting liquid additive – at 50, into the pressurized flow – inside 28, wherein the injector displaces a slug of liquid additive in response to each injection pulse – see figure 2 and column 2 lines 66-68, column 4 lines 1-68, column 5 lines 1-68 and column 6 lines 1-10. Miller et al. does not disclose the injector includes a piston for displacing a slug of liquid additive in response to each injection pulse, and a solenoid connected to the piston wherein each injection pulse actuates the solenoid to displace the piston and wherein one slug of additive is injected into the pressurized flow in response to the injection pulse. Papadopoulos et al. does disclose the additive injector comprises a piston – at 4 – see column 4 lines 18-25, for displacing a slug of liquid additive having a predetermined volume in response to each injection pulse – see column 4 lines 1-43 and column 5 lines 22-66, and a solenoid – see claim 18 in column 12, connected to a piston – at the pump – at 4 – see column 4 lines 18-25, wherein the solenoid displaces the piston

Art Unit: 3643

and wherein one slug of additive is injected into the pressurized flow in response to each injection pulse – see column 4 lines 1-43 and column 5 lines 22-66. Therefore it would have been obvious to one of ordinary skill in the art to take the device of claims 1 or 6 or 12 of the Lips patent and add the solenoid valve of Papadopoulos, so as to automatically control the operation of the device.

Referring to claim 30, Miller et al. as modified by Papadopoulos et al. further discloses the at least a first criteria associated with the fluid control signals include at least one of stored data from a memory structure – see column 4 lines 19-22 of Miller et al., instructions entered through a user interface – see column 5 lines 4-12 of Miller et al. and external data from at least a first external device – see at the soil sensors in column 4 lines 5-18 of Miller et al. or the sensors – at 59 of Miller et al.

Referring to claim 31, Miller et al. as modified by Papadopoulos et al. further discloses the stored data includes at least one of zone information for each of the fluid delivery zone in the liquid delivery system – see at Regions I and II in figure 2 of Miller et al., geographic information relating to at least a first environmental condition associated with the region in which the liquid delivery system is located – see for example column 4 lines 5-36 of Miller et al., and horticultural information relating to plant types associated with each of the fluid delivery zone in the liquid delivery system – see for example column 4 lines 5-36 of Miller et al.

Referring to claim 32, Miller et al. as modified by Papadopoulos et al. further discloses the zone information includes a flow rate for the each of the fluid delivery zone – see for example column 4 lines 5-68 and column 5 lines 1-52 of Miller et al.

Art Unit: 3643

Referring to claim 33, Miller et al. as modified by Papadopoulos et al. further discloses the geographic information includes information relating to at least one of soil types associated with the region, precipitation information associated with the region – see for example the soil sensors in column 4 lines 5-36 of Miller et al. and the meteorological sensors – at 59 in figure 2 of Miller et al.

Referring to claim 34, Miller et al. as modified by Papadopoulos et al. further discloses the external data received from at least a first external device includes at least one of, weather related information received from a weather sensor – at 59, in data communication with the controller – see for example figure 2, and soil related information – see column 4 lines 5-36 of Miller et al., received from a soil sensor in data communications with the controller – see for example figure 2 of Miller et al.

### ***Response to Arguments***

4. Applicant's arguments with respect to claims 29 and 30-34 have been considered but are moot in view of the new ground(s) of rejection in that applicant's arguments are with respect to U.S. Patent No. 5,366,159 to Childers and this reference is no longer used in the prior art rejections as seen above in paragraph 3 of this office action.

### ***Conclusion***


Art Unit: 3643

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David J. Parsley whose telephone number is (571) 272-6890.

The examiner can normally be reached on Monday-Friday from 8am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Poon can be reached on (571) 272-6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



David Parsley  
Patent Examiner  
Art Unit 3643